

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1.-24.

Claim 25. (Currently Amended) A magnetic field adjusting device for mounting on a pole plate mounted on a magnetic field generating source, the magnetic field adjusting device comprising:

a plurality of moveable shimming plugs, each mounted in a retaining groove, ~~whereby which is configured such that each shimming plug is movable [[can]] only [[move]] in the direction of the retaining groove; and [[,]]~~

~~characterized in that a plurality of drive screws engaged respectively with said shimming plugs; wherein,~~

~~each shimming plug is driven by means of [[a]] the drive screw engaged therewith, to adjust its position in an installed state within said retaining groove, thereby to effect magnetic field adjustment; [.]~~

the shimming plugs are mounted at the periphery of said pole plate;
and

each retaining groove is oriented in a substantially radial direction
of said pole plate.

Claim 26. (Previously Presented) The magnetic field adjusting device according to claim 25, wherein said retaining grooves are swallow-tailed grooves, and said shimming plugs have a trapezoidal section, for engaging with and sliding in the swallow-tailed retaining grooves.

Claim 27. (Previously Presented) The magnetic field adjusting device according to claim 25, wherein said retaining grooves are T-shaped grooves, and said shimming plugs have a T-shaped section, for engaging with and sliding in the T-shaped retaining grooves.

Claim 28. (Previously Presented) The magnetic field adjusting device according to claim 25, wherein said shimming plugs are dismountable for replacement with shimming plugs of different size or different magnetic properties.

Claim 29. (Cancelled)

Claim 30. (Previously Presented) An assembly comprising a pole plate and a magnetic field adjusting device according to claim 25, wherein the periphery of the pole plate is mounted with a ring-shaped part, and said retaining grooves are formed in the ring-shaped part.

Claim 31. (Previously Presented) The assembly according to claim 30, wherein there are twelve retaining grooves evenly distributed around the ring-shaped part.

Claim 32. (Cancelled)

Claim 33. (Currently Amended) A magnetic field generating source according to claim 46, 32, further provided with a pole plate mounted on the magnetic field generating source, wherein the adjusting bars are moveable in a direction perpendicular to the pole plate.

Claim 34. (Currently Amended) A magnetic field generating source according to claim [[32,]] 46, wherein said adjusting bars are mounted movably in retaining means.

Claim 35. (Previously Presented) A magnetic field generating source according to claim 34, wherein said retaining means are arranged at the periphery of the magnetic field generating source.

Claim 36. (Previously Presented) A magnetic field generating source according to claim 34, wherein said retaining means are arranged at the periphery of the pole plate.

Claim 37. (Currently Amended) A magnetic field generating source according to claim [[32,]] 46, wherein said adjusting bars have a rack structure, and are arranged to be driven by means of mating pinion gears.

Claim 38. (Currently Amended) A magnetic field generating source according to claim [[32,]] 46, wherein said adjusting bars are in the form of screws, which can be driven through an internal thread formed in the retaining means.

Claim 39. (Currently Amended) The magnetic field adjusting device according to claim [[32,]] 46, wherein said adjusting bars are dismountable for replacement with adjusting bars of different size or different magnetic properties.

Claim 40. (Previously Presented) The magnetic field adjusting device or magnetic field generating source of claim 25, wherein the shimming plugs or adjusting bars are arranged for adjustment in a synchronized manner.

Claim 41. (Currently Amended) The magnetic field adjusting device or magnetic field generating source of claim 25, wherein the shimming plugs or adjusting bars are arranged for remote adjustment by one or more electric ~~motor~~
motors.

Claim 42. (Previously Presented) The magnetic field adjusting device or magnetic field generating source of claim 41, further comprising a computer programmed with magnetic field measurement and/or modeling software, the computer being arranged to control the electric motors to adjust the shimming plugs or adjusting bars in accordance with instructions provided in response to magnetic field measurement or modeling.

Claim 43. (Previously Presented) The magnetic field adjusting device or magnetic field generating source according to claim 42, wherein the computer is arranged to control the electric motors to automatically adjust the shimming plugs or adjusting bars to achieve a desired level of field homogeneity.

Claim 44. (Cancelled)

Claim 45. (Previously Presented) A magnetic field generation device comprising a pair of opposing magnetic field generating sources arranged to provide a magnetic field between them; a pair of pole plates, respectively

mounted on the opposing faces of the magnetic field generating sources, and at least one magnetic field adjusting device according to claim 25.

Claim 46. (Currently Amended) A magnetic field generation device comprising:

a yoke, connected with an upper press plate and a lower press plate, the lower press plate and the upper press plate being oppositely arranged; and a ~~magnetic field generating device according to claim 44, with respective~~

a pair of magnetic field generating sources and pole plates that are oppositely mounted on the respective [[said]] press plates and are arranged to generate a magnetic field between them; wherein

each of said magnetic field generating sources includes a magnetic field adjusting device;

the magnetic field adjusting device comprises adjusting bars of a soft magnetic material mounted at the periphery of the magnetic field generating source;

the installed position of adjusting bars when mounted at the periphery of the magnetic field generating source is moveable in a direction

substantially parallel to a magnetic field produced by the magnetic field generating source; and

the resulting magnetic field generated by the magnetic field generating source is adjusted as a function of the installed position of the bars.

Claim 47. (Previously Presented) MRI apparatus comprising a magnetic field generation device according to claim 45.

Claim 48. (New) A magnetic field adjusting device for mounting on a pole plate mounted on a magnetic field generating source, the magnetic field adjusting device comprising:

a peripheral member;

a plurality of substantially radially oriented retaining grooves formed in said peripheral member;

a plurality of shimming plugs displaceably mounted in said plurality of retaining grooves, said shimming plugs having an exterior contour that conforms to an interior contour of said retaining grooves; and

drive screws which are engaged with corresponding holes in said shimming plugs, and which are operable to adjust a radial position of said

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shimming plugs within said retaining grooves while said shimming plugs remain in an installed state in said retaining groove, thereby effecting a magnetic field adjustment.